

170221-EH

Claims

- 5 1. Scrubber for separation of liquid phase and any other constituents from a fluid flow that in substance is comprising gas, which scrubber is formed as a standing vessel with round cross section, with outlet for liquid from the bottom and outlet for gas from the top,
characterized in that it is comprising
- 10 a fluid inlet that either is tangentially oriented to the inner wall of the scrubber or equipped with a deflection plate, such that introduced fluid is directed tangentially horizontal or with a small downward slope along the inner wall of the scrubber, into and through
- a fluid way arranged as a downwards directed spiral within the scrubber, along
15 the inner wall from a level over or at the inlet to a level at or close to the outlet for liquid, with opening for gas escape inwards to the center of the scrubber.
2. Scrubber according to claim 1,
characterized in that it is comprising a fluid way in form of a guiding plate that on the
20 inner wall of the scrubber is fastened in spiral form from a level over the inlet to a level just above the outlet for liquid, which guiding plate is extending out towards the center axis of the scrubber a distance from 5 % to 20 % of the inner diameter of the scrubber and is equipped with an upwards extending edge of height 75-150 % of the width of the guiding plate closest towards the centre of the scrubber.
- 25 3. Scrubber according to claim 1,
characterized in that the fluid way is a guiding plate that on the inner wall of the scrubber is fastened in spiral form 1-2 revolutions from the top of the scrubber slightly above a centred inlet with deflection plate to level slightly above the liquid phase in the bottom of
30 the scrubber, in that said guiding plate has uniform slope and is extending 10 % of the inner diameter of the scrubber from the wall and is equipped with a centred fastened upwards extending edge with height equal to the width of the guiding plate closest to the center of the scrubber.
- 35 4. Scrubber according to claim 1,
characterized in that the fluid way is comprising a spiral formed pipe placed within the scrubber, which spiral formed pipe in the scrubber top is oriented in direct elongation from a tangential inlet and is extending to just above the outlet in the bottom of the

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scrubber, which spiral formed pipe in all its length has one longitudinal or several closely spaced openings for gas escape.

5. Scrubber according to claim 1 or 4,
5 characterized in that the scrubber has form as a truncated opposite cone where a spiral formed fluid way in form of a longitudinal open pipe with spiral wound adapted to the form of the scrubber has been introduced.
- 10 6. Scrubber according to anyone of the preceding claims,
characterized in that a vortex breaker is arranged above the outlet of the scrubber.
7. Scrubber according to anyone of the preceding claim,
characterized in that the fluid way in downward direction has increasing slope.
- 15 8. Scrubber according to anyone of the preceding claims,
characterized in that the fluid way in downward direction has increasing opening for gas escape.
- 20 9. Scrubber according to anyone of the preceding claims,
characterized in that it has equipment for demisting arranged between the inlet and the outlet for gas and equipment for vortex breaking arranged between the lower end of the fluid way and the outlet for liquid.
- 25 10. Scrubber according to claim 1,
characterized in that the fluid way is completely closed for gas escape at the inlet, but becomes gradually open for escape of gas towards the outlet, and the fluid way has about 5 revolutions in total.

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